

## CLAIMS

What is claimed is:

1. A method of optimizing system resources in  
5 a network using packetized voice telephony comprising:  
determining that a packetized voice call from  
an originating gateway terminates at a non-human voice  
interface system, wherein the packetized voice call is  
assigned a specified high priority level; and  
10 transmitting signaling to cause the originating  
gateway to transmit the packetized voice call to the non-  
human voice interface system at a lower priority than the  
specified high priority level.
- 15 2. The method of Claim 1 wherein the non-human  
voice interface system comprises a voice messaging  
system.
3. The method of Claim 1 wherein the  
20 determining includes determining whether a subscriber at  
a terminating gateway intended to be a terminating end of  
the packetized voice call subscribes to a voice messaging  
system.
- 25 4. The method of Claim 1 wherein the non-human  
voice interface system comprises an interactive voice  
response system.
5. The method of Claim 1 further comprising  
30 transmitting signaling to cause the originating gateway  
to compress the packetized voice call.
6. The method of Claim 1 wherein the specified  
high priority level comprises a real time priority level  
35 to ensure that the packetized voice call will occur  
substantially in real time.

7. The method of Claim 1 wherein the determining includes detecting whether the packetized voice call has been answered at a terminating gateway intended to be a terminating end of the packetized voice  
5 call within a prescribed number of rings at the terminating gateway.

8. The method of Claim 7 wherein the detecting comprises detecting whether a ring timeout has occurred  
10 at the terminating gateway within the prescribed number of rings at the terminating gateway.

9. The method of Claim 7 wherein the detecting comprises detecting whether an absence of an offhook at  
15 the terminating gateway within the prescribed number of rings at the terminating gateway.

10. The method of Claim 1 wherein the transmitting step comprises automatically transmitting  
20 the signaling to cause the originating gateway to transmit the packetized voice call to the non-human voice interface system at the lower priority than the specified high priority level.

11. The method of Claim 1 wherein the transmitting step comprises selectively transmitting the signaling to cause the originating gateway to transmit  
25 the packetized voice call to the non-human voice interface system at the lower priority than the specified high priority level.  
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12. A method of optimizing system resources in a network using packetized voice telephony comprising:  
receiving an indication that a packetized voice  
35 call has terminated at a non-human voice interface system, wherein the packetized voice call is assigned a specified high priority level;

re-prioritizing the packetized voice call to a lower priority level than the specified high priority level; and

transmitting the packetized voice call to the  
5 non-human voice interface system at the lower priority level.

13. The method of Claim 12 wherein the non-human voice interface system comprises a voicemail  
10 system.

14. The method of Claim 12 wherein the non-human voice interface system comprises a interactive voice response system.  
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15. The method of Claim 12 further comprising compressing, prior to the transmitting step, the packetized voice call.

16. The method of Claim 12 wherein the specified high priority level comprises a real time priority level to ensure that the packetized voice call will occur substantially in real time.  
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17. A system for optimizing system resources in a network using packetized voice telephony comprising:  
means for determining that a packetized voice call from an originating gateway terminates at a non-human voice interface system, wherein the packetized  
25 voice call is assigned a specified high priority level;  
30 and

means for transmitting signaling to cause the originating gateway to transmit the packetized voice call to the non-human voice interface system at a lower  
35 priority than the specified high priority level.

18. The system of Claim 17 wherein the means for determining includes means for determining whether a

subscriber at a terminating gateway intended to be a terminating end of the packetized voice call subscribes to a voice messaging system.

5           19. The system of Claim 17 further comprising means for transmitting signaling to cause the originating gateway to compress the packetized voice call.

10           20. The system of Claim 19 wherein the means for determining includes means for detecting whether the packetized voice call has been answered at a terminating gateway intended to be a terminating end of the packetized voice call within a prescribed number of rings at the terminating gateway.

15           21. The system of Claim 19 wherein the means for transmitting comprises means for automatically transmitting the signaling to cause the originating gateway to transmit the packetized voice call to the non-  
20 human voice interface system at the lower priority than the specified high priority level.

25           22. The system of Claim 17 wherein the means for transmitting comprises means for selectively transmitting the signaling to cause the originating gateway to transmit the packetized voice call to the non-human voice interface system at the lower priority than the specified high priority level.

30           23. A system for optimizing system resources in a network using packetized voice telephony comprising:  
              means for receiving an indication that a packetized voice call has terminated at a non-human voice interface system, wherein the packetized voice call is  
35 assigned a specified high priority level;  
              means for re-prioritizing the packetized voice call to a lower priority level than the specified high priority level; and

means for transmitting the packetized voice call to the non-human voice interface system at the lower priority level.

- 5            24. The system of Claim 23 further comprising means for compressing the packetized voice call.

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